

# CROSS TALK

Edition 83 - June 2001

## Ozone Pollution Report Released

The American Lung Association released the State of the Air 2001 report on 1 May. According to the report, approximately 141 million Americans now live in areas that received an "F" rating in air quality based on Environmental Protection Agency (EPA) ozone levels data. This is an increase of around nine million people compared to last year, which is due in part to a hotter-than-average summer. Scientists have estimated that deaths in the United States caused by air pollution range from 50,000 to 100,000 per year and worry that global warming will continue to increase air quality and health problems. Ozone is created at ground level when nitrogen oxide, a pollutant from power plants, industry, and vehicle emissions, mixes with sunlight and hydrocarbons.

To view this report, access <http://www.lungusa.org/air2001/index.html>, or to find out the air quality where you live, access the EPA's Office of Air Quality and Radiation web site at <http://www.epa.gov/air/urbanair>. (Adapted from MSNBC, "More U.S. Areas Flunk Smog Test").

## Conference Corner

### P2/HWM Conference

The 6<sup>th</sup> Annual Joint Services Pollution Prevention & Hazardous Waste Management Conference and Exhibition will be held at the Henry B. Gonzalez Convention Center, 200 E. Market, San Antonio, Texas from 20-23 August 2001. If you have any questions regarding the 2001 conference, contact Ms. Laurie Grams or Ms. Alma Castillo at (210) 212-6161 or visit <http://www.p2-hwmconference.com>.

### DoD Recycling Workshop

The Department of Defense (DoD) Recycling Workshop will be held during the Solid Waste Association of North America's WASTECON, 15-18 October 2001 in Baltimore, Maryland. Workshop information will be posted on the HQ AFCEE/EQ web site at <http://www.hqafcee.brooks.af.mil/eq/wastecon/wastecon.htm>, or contact Ms. Nancy Carper, HQ AFCEE/EQT, at DSN 240-4964 or by email at [nancy.carper@hqafcee.brooks.af.mil](mailto:nancy.carper@hqafcee.brooks.af.mil).

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## P2 Initiatives

### Low VOC Paints

PRO-ACT now has a list of 22 General Services Administration (GSA) stock-listed water-based acrylic-latex enamel spray paints that are in compliance with the latest California volatile organic compound (VOC) emission limitations for aerosols. These paints are free of Environmental Protection Agency (EPA) 17 priority pollutant chemical ingredients. They are procured to Commercial Item Description (CID) A-A-2787, Type II, and are recommended, whenever possible, as alternatives to solvent-based spray paints procured to CID A-A-665E. Most colors are available in either gloss or flat, with beige being available in semi-gloss. Clear is also offered. These water-based spray paints have been extensively tested and have proven to rival traditional solvent-based paints in performance. They are suitable for use on metal, wood, plaster, masonry, and glass. PRO-ACT can provide the National Stock Number (NSN) for the color, or colors, you need, and help determine if these paints are authorized for use on your equipment. We can also provide a Material Safety Data Sheet (MSDS) for each color. Any Air Force organization switching to these paints is demonstrating its PRO-ACTive approach to pollution prevention through the procurement



**PRO-ACT**  
A Base-level Pollution Prevention Resource sponsored by HQ Air Force Center for Environmental Excellence



and use of products that contain less hazardous ingredients.

### Wright-Patterson Energy Policy

The Energy Policy Act of 1992 and Executive Order 13123 require all federal facilities to reduce their energy consumption, 35 percent per square foot by 2010 compared to a 1985 baseline. The guidance also requires a 30 percent reduction of greenhouse gas emissions by 2010 compared to a 1990 baseline. Air Force Materiel Command added an additional goal of zero cost growth from 1990. At Wright-Patterson AFB, organizations have made tremendous efforts to reduce energy consumption. The base has implemented many quality of life changes, such as the no heat/no cool transition season and lighting retrofit projects. The Civil Engineer Directorate has also begun to reduce electric bills through use of the Energy Management System, an automated system that allows precise control of heating, ventilation, and air conditioning systems. The base saves approximately \$20,000 per month, using this system and has reduced overall energy costs over \$3 Million since 1994. The base's updated energy consumption guidance, "WPAFB Policy of Energy Conservation 2001," gives commanders and building managers the tools necessary to develop effective energy conservation programs without placing a strain on quality of life and mission accomplishment. It includes information on public awareness, reducing consumption during peak times, lighting policy, heating, ventilating, and air conditioning directives, and other energy conservation actions. For a copy of the policy, contact PRO-ACT or access <http://www.wpafb.af.mil/energy/policy01.htm>.

#### In Our Customers Own Words...



"Very Efficient! PRO-ACT is an excellent service for those of us out in the field managing numerous concerns."

CMSgtRussell  
Randolph AFB, TX

## CrossTalk

CrossTalk, published monthly by PRO-ACT, a service of the Environmental Quality Directorate, Headquarters Air Force Center for Environmental Excellence (HQ AFCEE/EQ), Brooks Air Force Base, Texas.

Contents of CrossTalk are not necessarily the official views of, or endorsed by, the U.S. Government, the Department of Defense or the Department of the Air Force. Reference to any commercial product or company does not imply endorsement by the government or any of its agencies.

Readers may submit articles or photographs for publication. Material will be edited, however, to conform to PRO-ACT and Air Force guidelines.

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## ECAMP BMP Update

*The Air Force Environmental Compliance Assessment and Management Program (ECAMP) is a tool designed to assist Air Force installations and organizations as they assess their compliance with various federal, state, local, and Air Force environmental requirements. Aside from noting potential program non-compliances, ECAMP reports also identify positive findings or Best Management Practices (BMPs) that demonstrate a standard of excellence or an achievement considered best-in-class. The 2000 ECAMP Final Report for Whiteman AFB contained several positive findings, or BMPs, one of which is highlighted here from the Pollution Prevention protocol.*

### Adjustable Cold Air Gun Coolant System Whiteman AFB, Missouri

Master Sergeant (MSgt) Wayne Ferencz, Metals Technology Shop at Whiteman AFB, MO has instituted the use of an adjustable cold air gun coolant system that eliminates the requirement for coolant sprays that contain hazardous chemicals and require disposal as hazardous wastes. The cold air gun coolant system uses compressed air in the area where metal, plastic, wood, or ceramic is being cut. This system is so efficient that it greatly reduces the chance of product distortion caused by heat build-up. The system also carries away the chips and wastes produced during the cutting process.

Use of the cold air gun coolant system has proven to extend the life of cutting tools and improve the quality of the finished products. The system speeds the cutting, machining, turning, and grinding processes by approximately 35 percent and produces no electro-magnetic or radio-frequency interference. As stated above, the cold air gun coolant system uses compressed air, no Freon or other refrigerants are used. The system has

no moving parts, is exceptionally reliable, and requires virtually no maintenance. The system also eliminates the need for shop rag use during the cutting process; thereby reducing this waste stream. This inexpensive system reduced the Metals Technology Shop hazardous waste stream by 50 percent.

The adjustable cold air gun coolant system used at Whiteman AFB is the ITW Vortec. Though it is not stock-listed, a complete kit can be purchased for approximately \$325. Additional gun and base units sell for approximately \$160. Two suppliers found on the World Wide Web (WWW) are MSC Industrial Direct Company Incorporated, (800) 645-7270, <http://www.mscdirect.com>; and Enco, (800) 873-3626, <http://www.use-enco.com>.

For further information on the Whiteman AFB Adjustable Cold Air Gun Coolant System and its uses, contact MSgt Wayne Ferencz, 509 Maintenance Squadron, DSN 975-4613, [ferenczw@whiteman.af.mil](mailto:ferenczw@whiteman.af.mil).

### We Want Your Input!

PRO-ACT is interested in your comments regarding our publications and services. We welcome your input regarding environmental success stories, new technologies, best management practices, and fact sheet topic ideas. We are also interested in any documents, videos, and base environmental plans that could be included in our technical library. Please contact us at DSN 240-4214 or by email at [pro-act@hqafcee.brooks.af.mil](mailto:pro-act@hqafcee.brooks.af.mil).

## Tools and Training

### Environmental Analysis Support

AFCEE's Description of the Proposed Action and Alternatives (DOPAA) software is now available online. The software is designed to assist proponent organizations at typical Air Force installations in identifying elements necessary for inclusion in the DPOAA for preparation of an Environmental Assessment (EA) or an Environmental Impact Statement (EIS). The software targets personnel not familiar with the environmental impact process by providing a step-by-step tutorial for completing the description of the proposed action and alternatives portion of AF Form 813. It also provides users with queries, an online HELP function, and examples of project descriptions associated with typical Air Force activities. For a copy of the software, access <http://www.hqafcee.brooks.af.mil/ec/dopaa.htm>, or contact the project POC, Mr. Don Kellogg at DSN 240-4183.

### Preparation of Sampling and Analysis Plans

The U.S. Army Corps of Engineers has published an Engineer Manual titled "Engineering and Design - Requirements for the Preparation of Sampling and Analysis Plans (EM 200-1-3)." It provides guidance for the preparation of project-specific sampling and analysis plans for the collection of environmental data. In addition, default sampling and analytical protocols are included, which may be used verbatim or modified based upon project-specific data quality objectives. The goal of this manual is to promote consistency in the generation and execution of sampling and analysis plans. View or download this manual at <http://www.usace.army.mil/usace-docs/eng-manuals/em200-1-3/>.

### Alternative Landfill Remediation

The AFCEE Environmental Restoration Transfer Technology Division (HQ AFCEE/ERT) is supporting the development of new concepts regarding the remediation and closure of landfill sites that provide opportunities for improved

performance and cost savings in both remediation and long-term maintenance. AFCEE/ERT has developed the following four documents to assist in optimizing Air Force landfill remediation:

- Landfill Covers for Use at Air Force Installations
- Survey of Air Force Landfills, Their Characteristics and Remediation Strategies
- Decision Tool for Landfill Remediation
- Landfill Remediation Project Manager's Handbook

The documents include regulations governing innovative landfill remediation, the efficient application of current technology and innovative alternatives, and the increased application of the no-further action alternative at military landfills. For a copy of the documents, call PRO-ACT at DSN 240-4214 or obtain a downloadable copy at <http://www.hqafcee.brooks.af.mil/er/ert/landfill.htm>.

### AFCEE Adds PBC<sup>2</sup> Program to Web

Headquarters Air Force Center for Environmental Excellence's Environmental Restoration Directorate has added a performance-based contracting (PBC) program, referred to as Performance-Based Cleanup Contracting (PBC<sup>2</sup>), to their web site. AFCEE began exploring PBC options in 1999 to determine how the method could best be applied for AFB Restoration and Closure facilities and ensure that clean-up and property transfer occur in a timely and cost efficient manner. PBC<sup>2</sup> is an approach to contracting in which the client retains a contractor to perform environmental work with maximum focus on results and minimal focus on process. The contractor is given performance specifications, or metrics, and the client grants maximum control to the contractor to achieve the metrics. Performance is to be specified as an outcome to be achieved rather than a level of effort to be performed. AFCEE's program is intended to streamline procedural processes and improve communication while increasing contractor flexibility and project ownership. For a program overview visit <http://www.hqafcee.brooks.af.mil/er/pbc/default.asp>.



## Regulatory Process Changes

A state-by-state guide prepared for the U.S. Army Environmental Center that details how state agencies make changes to rules and regulations is now available on the Defense Environmental Network and Information eXchange (DENIX). The guide contains information on the following steps for changing state regulations:

- Departmental discussion and drafting of the new rule within an agency, including invited public participation in many states
- Official publication of the proposal, which may be in a state register, newspapers, mailing lists, or on the Internet
- A public comments and hearings period for about 30 to 60 days after the publication of the proposal
- Review of comments received and modification of the proposal if needed
- Formal approval of the new regulation by the agency
- Approval by the governor or the legislature or a regulatory review committee
- Publication of the final regulation, with the date it takes effect

To locate the regulatory process for your state, access <http://www.denix.osd.mil/denix/DOD/Legislation/All-States/allstates.pdf>. Distribution is limited to the DoD and you must have a DENIX account to view the document.

## Technical Inquiry (TI) Roundup

### TI 22745 – Electrical Corrosion Preventive Compound

By Carl Lehman

A PRO-ACT customer requested a product substitution for “Con-Tac,” an electrical connection corrosion preventive compound, National Stock Number (NSN) 8030-01-438-4101, manufactured by International Lubricant & Fuel Consultants Incorporated. This product is Type II, Grade B, and is required by Technical Order (T.O.) 1F-16A-28JG-10-1. The customer stated

this product has a flash point of 25 degrees Fahrenheit (°F) and you would like a product with a much higher flash point.

#### *Summary of Findings:*

According to Mr. Horne, F-16 Engineering Office, there are only two corrosion preventive compounds approved for use on F-16 electrical connections, Con-Tac and MIL-L-87177A, Grade B, which have the same formulation. Mr. Horne said that ethyl acetate is the carrier that allows the corrosion preventive compound to be in a liquid state so it can be applied where needed, and it is the ethyl acetate that has the 25°F flash point. However, once it is applied, he indicated that the ethyl acetate evaporates within 30 to 60 seconds, and the low flash point is no longer applicable.

#### *Detailed Findings:*

PRO-ACT contacted Mr. David Horne, Corrosion Engineer, F-16 Engineering Office, Ogden Air Logistics Center (OO-ALC/YPVS), DSN 777-6263. Mr. Horne stated that Con-Tac is the same as ILFC-1006. MIL-L-87177A, Grade B is the only other corrosion preventive compound approved for use on F-16 electrical connections. He indicated that these two products have the same ingredients. He also stated that it may be more difficult to requisition MIL-L-87177A in small units of issue than Con-Tac. Mr. Horne said that ethyl acetate is the carrier that allows the corrosion preventive compound to be in a liquid state so it can be applied where needed, and it is the ethyl acetate that has the 25°F FP. However, once it is applied, he indicated that the ethyl acetate evaporates within 30 to 60 seconds, and the low flash point is no longer applicable. Mr. Horne said that to the best of his knowledge, there has never been a problem with this compound’s low flash point, because the ethyl acetate evaporates so quickly upon application. Mr. Horne said that based on test data, this formulation is the best, to date, for use on electrical connections. He stated that it removes all corrosion-causing moisture from the connections and leaves a long-lasting preventive film. Finally, Mr. Horne said that during its test and evaluation period, the use of Con-Tac saved the Air Force in excess of \$500

million in repair and replacement costs. He indicated that this product is being authorized for use on all F-16 aircraft, and that it is under evaluation for use on all other Air Force aircraft electrical connections.

## **TI 22671 – Product Substitution, Paint**

*By Rick Howell*

A PRO-ACT customer was seeking Environmental Protection Agency (EPA) 17 priority pollutant-free substitutes for the following four products used by the vehicle maintenance shop. No applicable technical orders or military specifications apply to this application.

1. NSN 8010-00-067-5434, Primer Brown,
2. NSN 8010-00-537-2050, Black enamel,
3. NSN 8010-00-852-9033, Yellow enamel, and
4. NSN 8010-01-441-5940, Paint thinner.

The customer also requested that PRO-ACT locate EPA 17 priority pollutant free replacements for two previous products researched in PRO-ACT technical inquiry #22096 for 8010-00-721-9751 & 8010-00-597-7862, silver spray paint.

### *Summary of Findings:*

PRO-ACT identified potential substitutes for the four items requested above. According to Mr. Scott Flannagan, General Services Administration (GSA) Paint and Chemical Commodity Center, (816) 823-1972, there is still no non-solvent-based silver spray paint. According to Mr. Brian Gosche, Chemist, Lighthouse for the Blind Industries, (314) 522-3141, there is no substitute at this time; however, they are working on an acetone based silver spray paint that could be available in the near future. Mr. Commisso, Griggs Paint Company, (602) 243-3293, stated that they could custom make a batch of solvent-based silver spray paint that would not contain any EPA 17 priority pollutants.

### *Detailed Findings:*

On 19 April 2001, PRO-ACT stated that we were still in the process of having our final letter reviewed by the Air Force and would forward all

information to the customer when this process is completed.

During a verbal update, PRO-ACT provided the following NSN's that are potential substitutes for primer brown, black enamel paint, yellow enamel and paint thinner. These items were obtained from the General Services Administration 1999-2000 products catalog.

1. Primer brown, 8010-00-292-1127, 8010-00-161-7275;
2. Black enamel, 8010-01-336-0529, 8010-01-34-0903;
3. Yellow enamel, 8010-00-900-3650, 8010-00-900-3648, 8010-01-331-6114, 8010-01-332-3746, 8010-01-332-3745; and
4. Paint thinner, 8010-00-597-5257, 8010-00-064-0926, 8010-00N071632, 8010-00N011192, 8010-00N041718.

We spoke with Mr. Flannagan, who stated that there is still no non-solvent-based silver spray paint. He said chemists have been unable to perfect a way for water-based spray paints to effectively transport silver pigments.

We next contacted Mr. Brian Gosche, who stated that chemists have been unable to perfect a way for water-based spray paints to effectively transport silver pigments; however, they are working on an acetone based silver spray paint that could be available in the near future.

We then contacted Mr. Dominic Commisso, who stated that the Griggs Paint Company could custom make a batch of solvent based silver spray paint that would not contain any EPA 17 priority pollutants. Mr. Commisso recommended contacting him via E-mail at [sales@griggs paint.com](mailto:sales@griggs paint.com) or facsimile (602) 268-6801, regarding the custom mixed paint option.

We recommended the customer complete a sole source justification request for these products by specific manufacturer and product name in order to ensure only products that are EPA 17 priority pollutant free are received. We also recommended

that the use of any new product be coordinated with Bioenvironmental Engineering and Environmental Management personnel in order to address any potential occupational health and/or environmental concerns they may have.

### **TI 22713 - UST Regulations**

*By Pilar Casteneda*

PRO-ACT responded to a customer's request for information concerning underground storage tanks (USTs). The customer's facility is converting from the support of F-16 aircraft to the support of KC-135 aircraft, and is currently considering the construction of a new deicing pad for the KC-135. The plans for the new deicing pad include the installation of an UST in order to retain the used deicing fluid. The used deicing fluid will not be discharged into the sanitary sewer and the customer wanted to know if it is possible to recycle the used deicing fluid. Specifically, the customer wanted to know the following:

1. What regulatory requirements apply to USTs that will be used for the capture of used deicing fluid, and
2. Must USTs used for the capture of used deicing fluid comply with the performance standards of USTs that are used to contain fuel.

#### *Item 1:*

PRO-ACT first contacted a representative of the UST Hotline (800) 424-9346, who stated Iowa is authorized by the Environmental Protection Agency (EPA) to regulate a State specific UST regulatory program.

We contacted Mr. Paul Nelson, Environmental Specialist, UST Section, Iowa Air Quality, Solid Waste, and Environmental Protection, (515) 281-8779, who stated that the requirements applicable for USTs that will be used for the capture of used deicing fluid are located in the following, Iowa Administrative Code (IAC), Part 567, "Environmental Protection Commission," Chapter 135, "Technical Standards and Corrective Action Requirements for Owners and Operators of

Underground Storage Tanks," (IAC 567-135) Sections:

1. IAC 567-135.3, "UST Systems-Design, Construction, Installation and Notification," (IAC 567-135.3),
2. IAC 567-135.4, "General Operating Requirements,"
3. IAC 567-135.5, "Release and Detection,"
4. IAC 567-135.6, "Release Reporting Investigation, and Conformation," and
5. IAC 567-135.7, "Release response and Corrective action for UST Systems Containing Petroleum or Hazardous Waste."

#### *Item 2:*

According to Mr. Paul Nelson all new USTs regardless of contents must comply with IAC 567-135.3, "UST Systems-Design, Construction, Installation and Notification."

### **TI 22589 - Wastewater Discharge of Laundry**

*By Ty King*

A PRO-ACT customer requested information on the discharge of laundry machine water into the sanitary sewer system. The customer wanted to know if it is acceptable for a laundry washing machine used by the Pest Management Shop to discharge into the sanitary sewer system.

#### *Summary of Findings:*

It is acceptable practice to plumb Pest Management shop laundry machines directly to installation sanitary sewer systems. These laundry facilities are designated to be used for the maintenance and cleaning of personal protection clothing items, such as overalls, and should not be used to clean other, non-personal protection clothing items or items heavily contaminated with pesticides. Items heavily contaminated with pesticides should be treated as hazardous waste.

#### *Detailed Findings:*

PRO-ACT first reviewed AFI 32-1053, Pest Management Program. Paragraph 4.4.1 states "Keep overall clean at all times. To prevent pesticide contamination of other clothing, use shop

washing machines and dryers or clearly identify any clothing sent to base laundry services. Contaminated work clothing should never be taken home or cleaned in washing machines with other clothing.” Paragraph 4.4.2 states “Properly dispose of any clothing that is heavily contaminated by pesticides.” Although void of indicating the acceptability of introducing laundry machine wastewater into a sanitary sewer system, the majority of base laundry services are plumbed directly to the sanitary sewer system.

PRO-ACT then reviewed Military Handbook 1028/8A, Design of Pest Management Facilities. Paragraph 3.5.2.6, Sanitary Sewer System and Drains, states in part “consult local water quality control regulations. Connect toilet, showers, and laundry plumbing fixtures to a sanitary sewer system. Ensure that only rain or snow-melt water from the roof is routed to storm drains. Pesticide wastes are generated routinely from equipment washdown, laundry of work clothing, and personal decontamination. Disposal of these wastes through the industrial waste system may be required as determined by the installation.” Further, paragraph 3.5.2.9, Washer and Dryer, states “provide all plumbing connections and floor drain for washer and dryer.” This paragraph contains, in part, the following operational note: “It is essential that work clothing be laundered separately from uncontaminated clothing. If the installation laundry facility is used, work clothing slightly contaminated with pesticides can be bagged, tagged as pesticide clothing and washed at the installation laundry separately from other items.”

PRO-ACT contacted Mr. Wayne Fordham, Pesticide Program Manager, Air Force Civil Engineer Support Agency (AFCESA/CESM), DSN 523-6465, who stated he was not aware of any additional Air Force guidance regarding the restriction of Pest Management shop’s laundry wastewater entering sanitary sewer systems. He further suggested the State where the installation is located might have wastewater specific restrictions pertaining to pesticide laundry wastewater.

PRO-ACT contact Mr. Ken Olds, Department of Defense (DoD) Pesticide Hotline, DSN 584-3773, who stated that in accordance with Military Handbook 1028/8A, the acceptable practice is to plumb these laundry machine drains directly to the sanitary sewer system. He, too, suggested we contact the state to insure no additional restrictions are promulgated on this waste stream.

Last, we contacted Mr. Dick Barrett, Chief, Laboratory Services, Pest Management Program, Department of Environmental Health, Alaska Department of Environmental Conservation, (907) 745-3236, who stated Alaska does not have any restrictions on the introduction of laundry rinse water into the sanitary sewer system beyond federally mandated prohibitions printed on pesticide product labels. The base has the responsibility of complying with National Pollutant Discharge Elimination System (NPDES) permits.

